1. Write a program to convert Upper Case to Lower case.
2. What is recursion? Write a factorial program in Java using recursion.
3. An employee's total weekly pay is calculated by multiplying the hourly wage and number of regular hours plus any overtime pay which in turn is calculated as total overtime hours multiplied by 1.5 times the hourly wage. Write a program that takes as inputs the hourly wage, total regular hours, and total overtime hours, and prints an employee's total weekly pay.
4. Insertion sort is a simple sorting algorithm. Write a program to sort some given numbers using the insertion sort algorithm.
5. Write a program to find whether the given number is an Armstrong number or not.
6. Write a program in c to find the sum of the following series.

$1^2 - 2^2 + 3^2 - 4^2 + 5^2 -$ ------------------ $+ n^2$

7. A prime number is a number that is evenly divided by only 1 and itself. Write a java program to print the first 100 prime numbers.
8. Write a program to evaluate the series : $1*3 + 2*5 + 3*7 + \ldots + n*(2n+1)$
9. Write a program using java that reads five numbers from keyboard and display the smaller, larger and average of those numbers.
10. Write a program to sort an array and find max, min value.
11. Write a program to calculate GPA, avg, and total marks.
12. Write a program in C with recursive function to compute the value X^n where n is a positive integer and x has real value.
13. What is algorithm? Write down the algorithm to find out the second highest and second lowest element in an n-element array.
14. Write a java program to find sum of following series: $1+1/2+1/3+1/4+ 1/n$.
15. How many bits have to change to convert int A to int B.? Sample A=31 and B=14.
16. Write code to test a sorting algorithm of array.
17. Swap two numbers without using a third variable.
18. Write a java code for checking a number palindrome or not.
19. write a java program for implementing binary search.
20. Write a Program to Replace all 0's with 1's in a Number.